



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Date: February 20, 2004

GRANT ALAN INGRAM and
GOPICHANDRA SURNILLA

Examiner: Diem Tran

Serial No. : 10/064,008

Group Art Unit:3748

Filed : June 4, 2002

For : METHOD AND SYSTEM FOR RAPID HEATING OF AN
EMISSION CONTROL DEVICE

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

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Sir:

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INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.56, 1.97, and 1.98

Applicants are submitting this Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98 to disclose to the U.S. Patent and Trademark Office the patents, publications, applications, and/or other references listed on the enclosed, completed PTO-1449 form(s). The filing of this Information Disclosure Statement should not be construed as a representation that a search has been made or as an admission that the listed references are prior art for this application. Applicants respectfully request that the listed references be expressly considered during prosecution of the application, and that the references be made of record therein and appear among the "references cited" on any patents issuing therefrom.

CONTENT OF DISCLOSURE

This Information Disclosure Statement includes (1) three pages of PTO-1449 forms, and (2) a legible copy of each reference listed on the forms.

FOREIGN-LANGUAGE REFERENCES

A concise explanation of the relevance of each listed reference not in the English language follows:

Japanese Patent No. 62-247176: To obtain the max. combustion efficiency of an engine as a whole by allowing the spark plug in each cylinder to be ignition-timing-controlled independently, in the engine equipped with the cylinders for lean combustion and the cylinders for rich combustion.

The first cylinders 11-13 which are operated by the supply of the mixed gas in the vicinity of a theoretical air-fuel ratio and the second cylinder 14 into which the mixed gas in lean state is supplied in the low load operation and which is operated by the supply of the mixed gas in the vicinity of a theoretical air-fuel ratio in the operation other than the low load operation are provided. In such an engine, the spark plugs 51-54 installed onto the respective cylinders 11-14 are connected with a distributor 55, and supplied with the high voltage supplied from an ignition coil 56 controlled by the ignition instruction signal supplied from an ECU 60. Said ECU 60 is installed to allow the first cylinders 11-13 and the second cylinder 14 to perform the ignition timing control independently on the basis of the advance map memorized for the cylinder in each group according to the output of a cylinder discriminating sensor 57.

Japanese Patent No. 7-35016: To provide a uniform burning state for each cylinder group so as to enhance stability of an engine by changing a burning state of each cylinder group in order to improve the burning state of a cylinder group in a poor burning state on the basis of the burning state of each cylinder group.

A control unit 6 reads in a water temperature T_F on a front bank F side and a water temperature T_R on a rear bank R side on the basis of signals output from water temperature sensors 4, 5. When a rotation varying ratio $\Delta T_n < \text{an allowable limit value } n_1$, an ignition timing ADV_R on the rear bank R side is corrected to a delay angle side, thereby increasing an exhaust temperature. When $\Delta T_n \geq n_1$, the ignition timing ADV_R is corrected to an advance angle side, thus securing stability of an engine. Thereafter, a value obtained by multiplying a difference between the water temperatures $T_S < T_F$ by a predetermined coefficient is added into the ignition timing ADV_R, thereby calculating an ignition timing ADV_F on the front bank F side. Namely, the ignition timing ADV_F is set toward the advance angle side by a value equivalent to the difference between the water temperatures with respect to the ignition timing ADV_R.

TIMING OF DISCLOSURE / FEE INFORMATION

This Information Disclosure Statement is being filed, to the best of the undersigned's knowledge, either (1) before the mailing of a first Office action on the merits, or (2) before the mailing of a first Office action after the filing of a request for continued examination under 37 C.F.R. § 1.114. Therefore, in accordance with 37 C.F.R. § 1.97(b), no fee or statement under 37 C.F.R. § 1.97(e) is required.



Please contact the undersigned with any questions or comments regarding this Information Disclosure Statement.

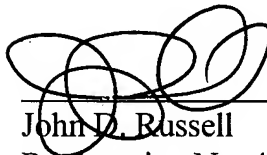
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on February 20, 2004.


Erin Filsinger

Respectfully submitted,

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	10/064,008	
	Filing Date	June 4, 2002	
	First Named Inventor	Grant Alan Ingram	
	Art Unit	3747	
	Examiner Name		
Total Number of Pages in This Submission	8+	Attorney Docket Number	FGT 328 (202-0405)

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): -PTO 1449 -Copies of References
<div>Remarks</div> <div>RECEIVED MAR 01 2004 TECHNOLOGY CENTER R3700</div>		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	John D. Russell, Registration No. 47,048 Kolisch Hartwell, P.C.
Signature	
Date	February 20, 2004

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Erin Filsinger		
Signature		Date	February 20, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

SHEET 1 OF 3

FORM PTO-1449		DOCKET NUMBER FGT 328 (202-0405)		APPLICATION NUMBER 10/064,008		
INFORMATION DISCLOSURE CITATION IN AN APPLICATION		APPLICANTS Grant Alan Ingram and Gopichandra Surnilla				
		FILING DATE June 4, 2002		GROUP ART UNIT 3748		
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
	4,046,126	09-1977	Takemoto			
	4,051,673	10-1977	Masaki			
	4,172,434	10-30-1979	Coles			
	4,550,704	11-1985	Barho et al.			
	5,727,522	03-1998	Otani et al.			
	6,345,496	02-2002	Fuwa et al.			
	6,467,259	10-2002	Surnilla et al.			
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	6,550,240	04-2003	Kolmanovsky et al.			
	6,539,784	04-2003	King et al.			
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO
	1496605	12-30-1977	GB			
	62-247176	10-28-1987	JP			X
	2283111	04-26-1995	GB			
	07-035016	02-03-1995	JP			X
OTHER DOCUMENTS						
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U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
	4,690,116	09-01-1987	Takahashi			
	6,023,929	02-15-2000	Ma			
	4,305,249	12-15-1981	Schmid et al.			
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	5,628,299	05-1997	Marzonia et al.			
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	2090331A		GB			
OTHER DOCUMENTS						
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			FILING DATE June 4, 2002		GROUP ART UNIT 3748	
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
	5,483,941	01-1996	Cullen et al.			
	6,244,242	06-2001	Grizzle et al.			
	5,437,253	08-1995	Huffmaster et al.			
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	5,979,413	11-1999	Ohnuma et al.			
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